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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES
April 6, 2010

Dr. Craig Kleppe
BASF Corporation
26 Davis Drive, P.O. Box 13528
Research Triangle Park, NC 27709

Dear: Dr. Kleppe

Subject: Tower Herbicide Label Amendment
EPA Registration Number 7969-239
Application Date: December 31, 2009.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the labeling changes outlined below:

1. On page 3, under "Directions for Use", remove the sentence "TOWER is for use only by certified applicators or persons under their direct supervision." This is not a restricted use product. The following sentence can be used at the Registrant's discretion, "TOWER is intended for use only by certified applicators or persons under their direct supervision."

2. On page 4, in the "NONAGRIGULTURAL USE REQUIREMENTS" box, add, as the last sentence in the box, "Only protected applicator shall be in the treatment area during application".

3. On page 5, under "Use Sites", add the sentence "Not for use on residential lawns" to the end of the last bullet.

4. On page 8, under "Application Restrictions and Limitations", change the 7th bullet to "DO NOT apply to nonbearing fruit and nut trees within one year before harvest of food crop." Non-bearing trees grown for harvest (presumably for food) are not considered ornamental trees. If the Registrant has a different meaning then stated above, add a separate bullet for "DO NOT apply to nonbearing fruit and nut trees within one year before harvest of food crop." And clarify what specifically should not be harvested from nonbearing ornamental trees.

Under "Application Instructions" for turfgrass on golf courses, change "DO NOT apply more than 64 fluid ounces of Tower per acre per year." to "DO NOT apply more than 64 fluid ounces (3 lbs a.i.) of Tower per acre per year."

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5. On page 11, under "Commercial Ornamental Production", second paragraph, second sentence, add "...within one year before producing food crop," after "....nonbearing fruit and nut trees".

6. On page 18, change the paragraph subject heading from "Landscape and Grounds Maintenance" to "Landscape and Grounds Maintenance (Except Residential Lawns".

Under "Application Instructions and Restrictions" in the bottom box, add the bullet, "DO NOT apply to residential lawns."

This amended label supersedes all previously accepted labeling with the exception of supplemental labeling not part of this amended label request. A label stamped "Accepted with Comments" is enclosed for your records.

Submit one copy of final corrected printed labeling before you release the product for shipment.

Sincerely,

James Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

30422

Group	15	Herbicide

TOWER® HERBICIDE

For use as a preemergence weed control herbicide in ornamental production, landscape or grounds maintenance, other specified noncrop areas, and turfgrass on golf courses

Active Ingredient*:	
dimethenamid-P: (S)-2-chloro-N-[(1-methyl-2-methoxy)ethyl]-N-(2,4-dimethyl-thien-3-yl)-acetamide	63.9%
Other Ingredients:**	36.1%
Total:	100.0%

*Contains 6.0 pounds of active ingredient per gallon
**Contains petroleum distillates

EPA Reg. No. 7969-239 **EPA Est. No.**

KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

ACCEPTED
with COMMENTS
In EPA Letter Dated
APR - 6 2010
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
~~7969-239~~

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

BASF
The Chemical Company

FIRST AID	
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes. • Call a poison control center for treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give any liquid to the person. • **DO NOT** give anything by mouth to an unconscious person.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	
NOTE TO PHYSICIAN: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING. Causes substantial but temporary eye injury. Harmful if inhaled, swallowed, or absorbed through the skin. **DO NOT** get in eyes or on clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category F** on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

User Safety Requirements. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for **applicators and other handlers** and have such PPE immediately for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS
Users should: • Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. • Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

DO NOT apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

Dimethenamid-P has properties that may result in groundwater contamination. Application in areas where soils are permeable or coarse and groundwater is near the surface could result in groundwater contamination.

Dimethenamid-P has properties that may result in surface-water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

Point-source contamination. To prevent point-source contamination, **DO NOT** mix or load this or any other pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or dike mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwaters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment. Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixes, or rinsates.

Check valves or antisiphoning devices must be used on all mixing equipment.

Movement Dissolved in Runoff or Through Soil
DO NOT apply under conditions which favor runoff. **DO NOT** apply to impervious substrates such as paved or highly compacted surfaces or frozen soils. Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. To minimize the possibility of groundwater contamination, carefully follow application rates as affected by soil type in the **General Information** section of this label.

DO NOT apply if all three criteria exist:
1. Coarse soils classified as sand (does not include loamy sand or sandy loam)
2. Less than 3% organic matter (as determined by soil tests, if not known)
3. Where depth to ground water is 30 feet or less

Endangered Species Protection

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-800-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

To avoid adverse effects on endangered plant species, applicators in ornamentals production must comply with the following mitigation measures where and when endangered plant species are known to occur in proximity of the application site:

Ground Applications
Use low-pressure nozzles according to the manufacturer's specifications that produce only medium-to-coarse or very coarse droplets **AND** leave a 35-foot untreated buffer between treatment area and known endangered plant populations.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of herbicide application. The use of **Tower® herbicide** not consistent with this label can result in injury to crops, animals, or persons.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to ornamentals and turfgrass.

DO NOT contaminate irrigation ditches or water used for domestic purposes.

Tower is not for sale, distribution or use in Nassau and Suffolk counties in New York State.

Tower is for use only by certified applicators or persons under their direct supervision.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL OR CROP INJURY.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

EXCEPTION: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride ≥ 14 mils , or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

DO NOT enter treated areas without protective clothing until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

DO NOT use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, or foodstuffs and away from other pesticides. Avoid cross-contamination with other pesticides. Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal

Wastes resulting from this product may be disposed of on-site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Keep containers closed to avoid spills and contamination.

Container Disposal

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

(continued)

STORAGE AND DISPOSAL *(continued)*

Container Disposal *(continued)*

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Use Information

Mode of Action

Dimethenamid-P, the active ingredient in **Tower® herbicide**, is a shoot growth inhibitor that controls susceptible germinating seedlings before or soon after they emerge from the soil. Dimethenamid-P is a chloroacetamide herbicide belonging to the herbicide mode-of-action **Group 15** (WSSA)/**Group K3** (HRAC).

Use Sites

Tower is a selective preemergence herbicide for the control of certain annual grasses, annual broadleaf weeds and sedges as they germinate in:

- **Turfgrass on golf courses**
- **Commercial ornamental production**
- **Tree plantations**
- **Landscape and grounds maintenance**

Tower may be applied as a soft-residual bareground treatment in the use sites described above.

Tower will not control emerged and established weeds.

A **Tower** treatment may be followed by any registered herbicide to control weeds not listed on the **Tower** label.

Application Information

Application Mixing Instructions

Compatibility Test for Mix Components

Before tank mixing, always perform a simple jar test to ensure compatibility of herbicides.

1. For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
2. Add components in the sequence indicated in the **Mixing Order for Ground-driven and Backpack Sprayers** section using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.
3. Always cap the jar and invert 10 cycles between component additions.
4. When the components have all been added to the jar, let the solution stand for 15 minutes.
5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Mixing Order for Ground-driven and Backpack Sprayers

1. **Water** - Begin by agitating a thoroughly clean sprayer tank 1/2 to 3/4 full of clean water.
2. **Agitation** - Maintain continuous and constant agitation throughout mixing.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-soluble additives** (such as water-soluble fertilizers when applicable)
6. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
7. **Water-soluble products** (such as **Pendulum® AquaCap™ herbicide**)
8. **Emulsifiable concentrates** (such as **Tower** or oil concentrate when applicable)
9. **Remaining quantity of water**

Maintain continuous and constant agitation throughout application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

Tank Mixing Information

Tower® herbicide may be tank mixed with one or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels, provided that the product labels do not prohibit such mixing. Follow the most restrictive label use directions and limitations for all products used.

Physical incompatibility, reduced weed control, or plant injury may result from mixing **Tower** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Subsequent applications of postemergence herbicides may cause plant injury. Consult your local BASF dealer regarding local tank mix options.

Additives

Spray adjuvants have little or no influence on the performance of **Tower** when applications are made prior to weed emergence. However, several tank mixes with **Tower** could require adjuvants to improve burndown of emerged and/or established weeds. Therefore, surfactants or crop oil concentrate may be used with **Tower** tank mixes applied to emerged and/or established weeds. Follow the adjuvant recommendations on the tank mix partner's label.

MANAGING OFF-TARGET MOVEMENT

Spray Drift

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they shall be observed.

To minimize spray drift, the applicator should be familiar with and take into account the following drift reduction advisory information. Additional information may be available from state enforcement agencies or the Cooperative Extension Service on the application of this product.

Information on Droplet Size

The best drift management strategy and most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control.

Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Wind**; **Temperature and Humidity**; and **Temperature Inversions**).

Controlling droplet size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - **DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. **DO NOT** use nozzles producing a mist droplet spray.

Application Height

Making applications at the lowest possible height (ground-driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the application area, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph because of variable wind direction and high inversion potential.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud that can move in unpredictable directions because of the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or nontarget areas) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

Wind Erosion

Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

Application Methods, Equipment, and Rates

Tower® herbicide will provide most effective weed control when applied by ground equipment and subsequently incorporated into soil by rainfall, sprinkler irrigation, or by mechanical methods prior to weed seedling emergence from soil. **Tower** may be applied using water as the spray carrier. Additionally, **Tower** may be impregnated on and applied with dry bulk fertilizer. Sprayable fluid fertilizer as a carrier is not recommended for use.

Spraying Instructions

Uniformly apply with properly calibrated spray equipment in sufficient water per acre to uniformly treat the area with a spray pressure of 25 to 50 PSI. Suggested spray volumes are 20 to 200 gpa for landscape and ornamental applications and 10 to 200 gpa for all other noncrop applications such as soft-residual bareground applications. Avoid overlaps that will increase rates above those specified.

Avoid unintentional contact of spray solution with sidewalks, driveways, stone, wood, or other porous surfaces.

Cleaning Spray Equipment

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions; then triple rinsing the equipment before and after applying this product.

Application with Backpack or Handheld Spray Equipment

Refer to **Table 1** to determine the amount of **Tower** to apply per 1000 square feet of area. The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff. Calibration of backpack sprayer or other handheld spray equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet of area before mixing the spray solution. Follow information in **Application Mixing Instructions** section of this label.

Ground Application (dry bulk fertilizer)

Tower may be impregnated or coated onto dry bulk granular fertilizer carriers for preemergence surface applications. Impregnation or coating may be conducted by either the in-plant bulk system or the on-board system. When impregnated onto some dry fertilizer blends, **Tower** may exhibit a strong odor. Apply **Tower** within 30 days after impregnation on dry bulk fertilizer.

Apply 200 to 750 pounds of the fertilizer and herbicide blend per acre. Application must be made uniformly to the soil to prevent possible ornamental plant injury and offer satisfactory weed control. Impregnated fertilizer spread at 1/2 rate and overlapped to obtain a full rate will offer a more uniform distribution.

Formula to determine the herbicide rate when using dry bulk fertilizer applications:

$$\frac{\text{fluid ounces or pounds of herbicide per acre}}{\text{pounds of fertilizer per acre}} \times 2000 = \text{fluid ounces or pounds of herbicide per ton of fertilizer}$$

Incompatible Fertilizer Mixtures

DO NOT impregnate **Tower** alone or with mixes on ammonium nitrate, potassium nitrate, or sodium nitrate fertilizers or fertilizer blends. Single super phosphate (0-20-0) and triple super phosphate (0-46-0) may be impregnated only with **Tower** alone.

Application Use Rates

For preemergence control of the weed species (see **Table 3. Weeds Controlled**), apply **Tower** at the use rates stated in **Table 1**.

Table 1. Application Use Rates

Use Rate	Tower (fl ozs/acre)	Tower (fl ozs/1000 sq ft)
Low*	21	0.48 (14 ml)
High	32	0.73 (21 ml)

* Where heavy weed infestations are expected, apply up to 32 fluid ounces of **Tower** per acre.

Tower may be applied in a single application or in sequential applications.

In a single application, **DO NOT** apply more than the equivalent of 32 fluid ounces of **Tower** per acre.

For extended weed control, sequential applications of **Tower** can be made 5 to 8 weeks between application in turfgrass, and 6 to 8 weeks between applications in ornamentals. In a single growing year, **DO NOT** apply more than the equivalent of 64 fluid ounces of **Tower** per acre. **Tower** may be applied in a sequential use program with other herbicides that control emerged weeds.

Application Restrictions and Limitations

- **DO NOT** apply more than 1.5 lbs ai dimethenamid-P (32 fluid ounces of **Tower® herbicide**) per acre per application.
- **Maximum annual use rate** - **DO NOT** apply more than a total of 3.0 pounds of active ingredient dimethenamid-P (64 fluid ounces per acre or 1.46 fluid ounces per 1000 sq ft of **Tower**) per year.
- **DO NOT** apply **Tower** through any type of irrigation system.
- **DO NOT** apply as an aerial treatment.
- **DO NOT** treat plants grown for food or feed.
- **DO NOT** use treated plants for food or feed.
- **DO NOT** apply to nonbearing ornamental trees within one year of harvest.
- **DO NOT** apply this product over more than 30 acres per day using handheld equipment.
- To avoid the possibility of plant damage, **DO NOT** apply **Tower** to turfgrass or ornamental plants growing under stress from seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought.

Specific Information For Use Sites

Turfgrass on Golf Courses

Tower may be used as part of a preemergence weed management program in maintained turfgrass on golf courses. **Tower** applied as directed will provide preemergence control or suppression of weeds listed in **Table 3. Weeds Controlled**. **Tower** may be applied to both cool-season and warm-season turfgrass species as described in the **Tolerant Turfgrass Species** table following. Turfgrass species not listed on this label may be evaluated for tolerance by testing a small area prior to large-scale use. User assumes all risk.

Tolerant Turfgrass Species

Cool Season	Warm Season
Bentgrass*	Bahiagrass
Bluegrass, annual*	Bermudagrass, common
Bluegrass, Kentucky	Bermudagrass, hybrid
Bluegrass, roughstalk*	Buffalograss
Fine fescue	Centipedegrass
Perennial ryegrass	Kikuyugrass
Tall fescue	St. Augustinegrass
	Seashore paspalum
	Zoysiagrass

* Only established stands of 1/2-inch height or taller. Applications to annual bluegrass may result in yellowing and stand reduction.

Application Instructions

In improved or unimproved golf course turfgrass, apply **Tower** with ground equipment in a minimum spray volume of 10 gallons water per acre. **Tower** may also be applied through ground equipment including the use of spray injection systems in a minimum spray volume of 5 gallons water per acre.

In improved or unimproved golf course turfgrass, apply 21-fluid ounces to 32-fluid ounces **Tower** per acre prior to weed seed germination in the spring. **DO NOT** apply more than 32 fluid ounces of **Tower** per acre in a single application.

Tower may be applied as a single application or in sequential applications. **DO NOT** apply more than 64 fluid ounces of **Tower** per acre per year.

For extended weed control, sequential applications of **Tower** can be made 5 to 8 weeks between applications. **Tower** may be applied in a sequential use program with other herbicides that control emerged weeds in golf course turfgrass.

All applications of **Tower** must be made prior to weed seed germination.

As a preemergence herbicide, **Tower** must be watered into the weed seed germination zone by rainfall or irrigation (equivalent to 1/2 inch of rainfall) within 24 hours after application. If **Tower** is not activated by rainfall or irrigation, erratic weed control may result.

Weed control may be reduced when **Tower** is applied to golf course turfgrass stands under conditions of heavy thatch.

Specific Golf Course Turfgrass Use Site Instructions

Turfgrass Use Site	Application Instructions and Restrictions
Turfgrass	• Apply on well-established turfgrass with a dense and uniform stand. • Application to turfgrass stands under stress may cause turfgrass injury. • On turfgrass that has been thinned or damaged due to winter injury, excessive moisture, etc., allow for turfgrass recovery prior to applying **Tower® herbicide**. • **DO NOT** apply to residential turfgrass, lawns, recreational turfgrass, sod farms, or any other improved or unimproved maintained turfgrass, unless specified in other supplemental labeling.
Golf course	• **Tower** may be applied to established turfgrass on tees, fairways, roughs, and any other maintained or naturalized turfgrass areas on the golf course. • **DO NOT** apply **Tower** to (putting) greens, including bentgrass, Bermudagrass, or bluegrass species because injury may occur.
Overseeded warm-season turfgrass	• Delay (winter) overseeding of treated turfgrass for at least six (6) weeks following the last **Tower** application. • Apply **Tower** to overseeded warm-season turfgrass just prior to overseed removal. • If **Tower** is applied before just prior to overseed removal, then thinning or injury of the overseeded species may occur. • Application of a nitrogen-containing fertilizer at or soon after a **Tower** application will minimize any delay in spring greenup and any temporary yellowing.
Sprigging warm-season turfgrass	• Delay **Tower** applications for at least two (2) months after sprigging. • Following a **Tower** application, delay sprigging turfgrass into treated area for two (2) months.
Sod establishment	• Applications of **Tower** to newly sodded areas must be delayed until the turfgrass root system is well established and the turfgrass has been mowed at least two (2) times.
Re-seeding in turfgrass establishment	• Delay re-seeding of treated turfgrass for at least six (6) weeks following the last **Tower** application.
Newly planted areas (new seedings)	• **DO NOT** apply **Tower** to newly planted areas until the turfgrass has filled in and has been mowed at least four (4) times.
Dormant warm-season turfgrass	• **Tower** can be tank mixed with glyphosate or other postemergence herbicides for applications to dormant, non-overseeded turfgrass stands.
Naturalized grass areas	• **Tower** may be used to control weeds in naturalized grass areas on golf courses for species listed in the **Tolerant Turfgrass Species** table above.

Turfgrass Tank Mixes

Tower may be tank mixed with the following herbicides or others labeled for use in turfgrass on golf courses: **Basagran® T/O herbicide**, **Drive® XLR8 herbicide**, **Image® 70 DG herbicide**, **Onetime® herbicide**, **Pendulum® AquaCap™ herbicide**, glyphosate, or MSMA. When tank mixing with **Pendulum AquaCap**, first add **Pendulum AquaCap** to the partially filled spray tank while agitating; then add **Tower**. Fill the remainder of the spray tank with water while agitating. BASF recommends testing **Tower** tank mixes on a small portion of the target turfgrass to determine if damage is likely to occur. Consult your local BASF dealer regarding local tank mix options.

Special Instructions for Control of Key Weed Species in Turfgrass

A sequential herbicide application program approach including **Tower® herbicide** is recommended for control of the following key weed species in turfgrass on golf courses. The weed management programs must be initiated prior to the geographical and/or seasonal germination of weed seeds of these species. Special use instructions for these weed species are presented in the table below.

Target Weed Species	Initial Application		Sequential* Application(s)	
Goosegrass	**Late Winter To Early Spring**	**Spring**	**First Sequential Application**	**Second Sequential Application**
	Pendulum® AquaCap™ herbicide 4.2 pts/A (or other preemergence herbicide)	**Tower** 32 fl ozs/A	**Tower** 32 fl ozs/A	–
	Pendulum AquaCap 4.2 pts/A (or other preemergence herbicide)	**Pendulum AquaCap** 4.2 pts/A plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A
Nutsedge **Annual sedges** **Kyllinga species**	**Spring**		**First Sequential Application**	**Second Sequential Application**
	Tower 32 fl ozs/A		**Tower** 32 fl ozs/A	–
	Tower 21 fl ozs/A		**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A
Doveweed	**Late Winter To Early Spring**	**Spring**	**First Sequential Application**	**Second Sequential Application**
	Pendulum AquaCap 4.2 pts/A (or other preemergence herbicide)	**Tower** 32 fl ozs/A	**Tower** 32 fl ozs/A	–
	Pendulum AquaCap 4.2 pts/A (or other preemergence herbicide)	**Pendulum AquaCap** 4.2 pts/A plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A plus POST herbicide**	**Tower** 21 fl ozs/A plus POST herbicide**
	Pendulum AquaCap 4.2 pts/A (or other preemergence herbicide)	**Pendulum AquaCap** 4.2 pts/A	**Tower** 21 fl ozs/A plus POST herbicide**	**Tower** 21 fl ozs/A plus POST herbicide** **Repeat treatment again in 5 to 8 weeks** to provide control until frost.

(continued)

Special Instructions for Control of Key Weed Species in Turfgrass *(continued)*

Target Weed Species	Initial Application		Sequential* Application(s)	
Spurge and other warm-season broadleaf species	**Late Winter To Early Spring**	**Spring**	**First Sequential Application**	**Second Sequential Application**
	Pendulum® AquaCap™ herbicide 4.2 pts/A (or other preemergence herbicide)	**Tower® herbicide** 32 fl ozs/A	**Tower** 32 fl ozs/A	–
	Pendulum AquaCap 4.2 pts/A (or other preemergence herbicide)	**Pendulum AquaCap** 4.2 pts/A plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A
Annual bluegrass *(Poa annua)*	**Late Summer to Non-overseeded Warm-season Turfgrass**		**Winter Applications to Dormant Bermudagrass**	
	Pendulum AquaCap 4.2 pts/A plus **Tower** 21 to 32 fl ozs/A		**Tower** 21 to 32 fl ozs/A plus glyphosate 3/4 pt/A	

* Sequential applications should be applied at a 5-week to 8-week interval following the previous application.

** During the sequential applications, **Tower** should be tank mixed with a postemergence (POST) herbicide product to control doveweed emerged at the time of application, to achieve season-long control. A POST product labeled for doveweed control, such as **Onetime® herbicide, Surge® herbicide, Trimec® herbicide**, or other POST broadleaf combination herbicides, is recommended.

Commercial Ornamental Production

Tower can be used in and around field, liner and container nurseries of commercial ornamental production.

Applications can be made, but are not limited to, ornamental plant species listed on this label such as trees, shrubs, ground covers, herbaceous perennials, ornamental grasses and bedding plants. Applications can also be made to nurseries such as seedling nonbearing fruit and nut trees, conifer and hardwood seedling liner nurseries or tree plantations and the nonproduction areas in commercial nurseries such as storage areas, vegetation filter strips, windbreaks, shelterbelts, cart paths, and graveled areas. **NOTE: Tower** can only be used on established liner beds with well-rooted plants and/or rootstocks.

Areas to be treated with **Tower** should be free of established weeds at the time of treatment, or **Tower** may be used in conjunction with herbicides registered for postemergence use (i.e. glyphosate, **Finale® herbicide**) for the control of established weeds in commercial ornamental production nurseries, landscaped ornamentals, and in other maintenance areas or grounds. **DO NOT** apply sprays containing glyphosate or **Finale** over the top of desirable plants. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in these areas.

Tower sprays are safe around and over the top of the established ornamental plants listed in **Table 2** of this label. However, not all varieties or strains of the ornamental plants listed have been tested. Refer to **Application Instructions and Restrictions** sections in charts in this label prior to any application of **Tower**. Unintentional consequences such as ornamental injury may result because of certain environmental or growing conditions, manner of use, or application. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage for at least 2 months prior to full-scale application.

Refer to **Table 1** for use rates, **Table 2** for list of of ornamental species, and **Table 3** for weeds controlled.

Ornamental Tank Mixes

For preemergence control of additional weed species, tank mix **Tower** with **Pendulum AquaCap** or other similar products such as **Gallery® herbicide** or **Princep® herbicide**. Refer to manufacturers' labels for specific instructions and follow the most restrictive.

Emerged weeds in ornamentals can be controlled using tank mixes containing glyphosate, **Finale**, **Ornamec® herbicide**, **Segment™ herbicide**, and other similar products. **DO NOT** apply sprays containing glyphosate or **Finale** over the top of ornamental plants.

Applied according to label directions and under normal growing conditions, **Tower** or **Tower** tank mix combinations will not cause ornamental plant injury. Overapplication can result in ornamental plant-stand loss, ornamental plant injury, or soil residues. Uneven application can decrease weed control or cause ornamental plant injury.

Specific Production Ornamentals[1] Use Site Instructions

Site	Application Instructions and Restrictions
Newly transplanted field-grown nursery stock	• **DO NOT** make over-the-top applications at time of field transplanting. Use shielded sprayer until plantings have been established for 1 year or more in the field. • **DO NOT** apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Care must be taken to ensure there are no cracks in the soil where **Tower® herbicide** could come into contact with the roots. • **DO NOT** apply during bud swell, bud break or at time of first flush of new growth. • Direct sprays away from grafted or budded tissue on transplants at all times.
Newly transplanted container-grown nursery stock	• **DO NOT** apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Care must be taken to ensure there are no cracks in the soil where **Tower** could come into contact with the roots. • For container-grown ornamentals, delay first application of the product to bareroot liners or young seedlings (e.g. plugs) for 2 weeks after transplanting. • **DO NOT** apply during bud swell, bud break or at time of first flush of new growth. • Direct sprays away from grafted or budded tissue on transplants at all times.
Established container or field-grown nursery stock	• **DO NOT** apply during bud swell, bud break or at time of first flush of new growth. • Apply as a directed or over-the-top spray. • If newly budded or grafted rootstock, apply using a shielded sprayer. • Care must be taken to ensure there are no cracks in the soil where **Tower** could come into contact with the roots.
Field-grown or container-grown production bulbs	• For use in ornamental bulbous-like crops such as caladiums, calla lily, daffodils (narcissus or jonquils), gladiolus, iris and lilies. • In field production, apply **Tower** to the soil surface only after the crop has been planted and the soil has been settled by several irrigations but prior to weed seed germination. • In fall-planted daffodils, iris or lilies, make an initial application of **Tower** following planting establishment; then make a sequential application of **Tower** in late winter or early spring prior to weed seed germination. • In container production, apply **Tower** to a weed-free surface either prior to bulb emergence or after leaf emergence from an established plant crown.
Bareground for container placement Gravel or ground floors of open-sided lathhouses (shadehouses) or other polyhouse structures that allow polycovers to be removed on a seasonal basis	Apply to soil; then water in (including mulch, gravel, wood chips, or other permeable base); replace containerized ornamentals onto pad.
Greenhouses, polyhouses or other enclosed structures	**DO NOT** apply in greenhouses, polyhouses or other fully enclosed greenhouse-type structures.

[1] Plant only those desirable plant species listed on this label into soil treated the previous season with **Tower** or injury may occur.

(continued)

Specific Production Ornamentals[1] Use Site Instructions *(continued)*

Site	Application Instructions and Restrictions
SENSITIVE Ornamental Species	See the special precautions below for these species.
Ornamental grasses	**DO NOT** apply **Tower® herbicide** because unacceptable phytotoxicity may occur.
Herbaceous perennial or annual species not listed on this label	**DO NOT** apply **Tower** because unacceptable phytotoxicity may occur.
Conifers	**DO NOT** apply **Tower** during spring growth or injury to terminals may occur, in particular to ***Pinus*** and ***Taxus*** species.
Bedding plants	Use the lower labeled rate of **Tower**, but **DO NOT** apply **Tower** sooner than four (4) weeks after transplanting for the following annual species: **alyssum**, **begonia**, **China aster**, **dahlia**, **moss rose**, **periwinkle**, **petunia**, **portulaca**, **salvia**, **statice**, **vinca**.
Boxelder Butterfly bush Chinese witch hazel Dwarf Nandina Lilac Maple Oak Spiraea Viburnum	**DO NOT** apply **Tower** sequentially to these species. During the growing season, however, a second application of **Tower** can be made if a herbicide of a different mode of action is applied between **Tower** applications. **Tower** applications must be separated by at least 16 weeks.

[1] Plant only those desirable plant species listed on this label into soil treated the previous season with **Tower** or injury may occur.

Table 2. Ornamental Species

Common Name	Scientific Name
Trees	
Alder, European black	*Alnus glutinosa*
Almond (nonbearing)	*Prunus dulcis*
Apple (nonbearing)	*Malus* x *domestica*
Apricot (nonbearing)	*Prunus armeniaca*
Arborvitae	*Thuja* spp.
Arbutus	*Arbutus* spp.
Ash	*Fraxinus* spp.
Ash, green	*Fraxinus pennsylvanica*
Ash, white	*Fraxinus americana*
Aspen, bigtooth	*Populus grandidentata*
Aspen, quaking	*Populus tremuloides*
Avocado (nonbearing)	*Persea americana*
Basswood	*Tilia* spp.
Birch, European weeping	*Betula pendula*
Birch, river	*Betula nigra*
Blackberry (nonbearing)	*Rubus ursinus, R. arvensis*
Blueberry (nonbearing)	*Vaccinium* spp.
Boxelder	*Acer negundo*
Boysenberry (nonbearing)	*Rubus ursinus* x *idaeus*
Buckeye, red	*Aesculus pavia*
Cedar, white	*Thuja occidentalis*
Chamaecyparis, boulevard	*Chamaecyparis pisifera*
Cherry, black	*Prunus serotina*
Cherry, choke	*Prunus virginiana*
Cherry, Kwanzan	*Prunus serrulata*
Cherry, Nanking	*Prunus tomentosa*
Cherry, sweet (nonbearing)	*Prunus avium*
Cherry, tart (nonbearing)	*Prunus cerasus*
Cottonwood	*Populus deltoides*
Crabapple	*Malus* spp.
Crape myrtle	*Lagerstroemia indica*
Cryptomeria, Japanese cedar	*Cryptomeria japonica*
Currant (nonbearing)	*Ribes petraeum, R. spicatum*
Cypress, bald	*Taxodium distichum*
Cypress, Leyland	*Cupressocyparis leylandii*
Dewberry (nonbearing)	*Rubus aboriginum*
Dogwood	*Cornus* spp.
Dogwood, flowering	*Cornus florida*
Dogwood, Korean	*Cornus kousa*
Dogwood, silky	*Cornus amomum*
Dogwood, shrub	*Cornus* spp.
Elderberry (nonbearing)	*Sambucus* spp.
Elm	*Ulmus* spp.
Elm	*Ulmus japonica*
Elm, winged	*Ulmus alata*
Eucalyptus (Silver-dollar) tree	*Eucallyptus cinera*
Fig (nonbearing)	*Ficus godeffroyi, F. prolixa, F. tinctoria*
Filbert (nonbearing)	*Corylus avellana*
Fir, balsam	*Abies balsamae*
Fir, Douglas	*Pseudotsuga menziesii*
Fir, Fraser	*Abies fraseri*
Fir, white	*Abies concolor*
Franklinia	*Franklinia* spp.
Fringe tree	*Chlonenthus retusus*

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Trees *(continued)*	
Ginkgo	*Ginkgo biloba*
Gooseberry (nonbearing)	*Ribes* spp.
Grape, American (nonbearing)	*Vitis* spp., *V. labrusca, V. vinifera*
Grape, European (nonbearing)	*Vitis* spp., *V. vinifera*
Grapefruit (nonbearing)	*Citrus* x *paradisi*
Gum, black	*Nyssa sylvatica*
Gum, sour	*Nyssa sylvatica*
Haw, black	*Viburnum prunifolium*
Hawthorn	*Crataegus* spp.
Hemlock	*Tsuga* spp.
Hemlock, Canada	*Tsuga canadensis*
Hemlock, Eastern	*Tsuga canadensis*
Holly, American	*Ilex opaca*
Honeylocust	*Gleditsia* spp.
Kiwi (nonbearing)	*Actinidia chinensis*
Lemon (nonbearing)	*Citrus* x *limon*
Lilac, common	*Syringa vulgaris*
Lilac, Japanese tree	*Syringa reticulata*
Linden	*Tilia* spp.
Loganberry (nonbearing)	*Rubus loganobaccus*
Macadamia nut (nonbearing)	*Macadamia integrifolia, M. tetraphylla*
Magnolia, saucer	*Magnolia soulangiana*
Magnolia, Southern	*Magnolia grandiflora*
Magnolia, star	*Magnolia stellata*
Maidenhair tree	*Ginkgo biloba*
Maple	*Acer* spp.
Maple, Norway	*Acer platanoides*
Maple, Japanese	*Acer palmatum*
Maple, red	*Acer rubrum*
Maple, sugar	*Acer saccharum*
Nannyberry, rusty	*Viburnum rufidulum*
Nectarine (nonbearing)	*Prunus persica*
Oak	*Quercus* spp.
Oak, Chinquapin	*Quercus muehlenbergii*
Oak, live	*Quercus virginiana*
Oak, pin	*Quercus palustris*
Oak, red	*Quercus rubra*
Oak, swamp chestnut	*Quercus michauxii*
Oak, water	*Quercus nigra*
Oak, white	*Quercus alba*
Oak, willow	*Quercus phellos*
Olive (nonbearing)	*Olea europaea*
Orange (nonbearing)	*Citrus* x *aurantium, Citrus* x *sinensis*
Palm, date	*Phoenix* spp.
Palm, fan	*Washingtonia* spp.
Palm, pindo	*Butia* spp.
Palm, Washington	*Washingtonia* spp.
Peach (nonbearing)	*Prunus persica*
Pear, Bradford	*Pyrus calleryana* 'Bradford'
Pear (nonbearing)	*Pyrus communis*
Pecan (nonbearing)	*Carya illinoinensis*
Pine	*Pinus* spp.
Pine, Austrian	*Pinus nigra*

(continued)

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Trees *(continued)*	
Pine, Italian stone	*Pinus pinea*
Pine, loblolly	*Pinus taeda*
Pine, Monterey	*Pinus radiata*
Pine, red	*Pinus resinosa*
Pine, Scotch	*Pinus sylvestris*
Pine, Virginia	*Pinus virginiana*
Pine, white	*Pinus strobus*
Pistachio (nonbearing)	*Pistacia Mexicana, P. vera*
Plum (nonbearing)	*Prunus domestica*
Plum, purple leaf	*Prunus cerasifera*
Pomegranate (nonbearing)	*Punica granatum*
Poplar, black	*Populus nigra*
Prune (nonbearing)	*Carex corrugata*
Raspberry (nonbearing)	*Rubus idaeus*
Red cedar, Eastern	*Juniperus virginiana*
Red cedar, Western	*Thuja plicata*
Red ironbark	*Eucalyptus sideroxylon* 'Rosea'
Redwood, dawn	*Metasequoia glyptostroboides*
Sequoia, giant	*Sequoiadendron giganteum*
Serviceberry	*Amelanchier laevis*
Sourwood	*Oxydendrum arboreum*
Spruce	*Picea* spp.
Spruce, Colorado blue	*Picea pungens*
Spruce, dwarf Alberta	*Picea glauca* 'albertiana'
Spruce, Norway	*Picea abies*
Spruce, white	*Picea glauca*
Sweetgum	*Liquidambar styraciflua*
Sycamore	*Platanus occidentalis*
Trachycarpus	*Trachycarpus* spp.
Tulip tree	*Liriodendron tulipifera*
Walnut, black (nonbearing)	*Juglans nigra*
Walnut, English (nonbearing)	*Juglans regia*
Willow, weeping	*Salix babylonica*
Yellowwood	*Cladrastis lutea*
Zelkova	*Zelkova* spp.
Zelkova, Japanese	*Zelkova serrata*
Shrubs	
Abelia	*Abelia* spp.
Abelia, glossy	*Abelia grandiflora*
Alder, witch	*Fothergilla gardenii*
Aucuba, gold	*Aucuba japonica*
Azalea	*Rhododendron* sp.
Bamboo, heavenly	*Nandina domestica*
Barberry	*Berberis* spp.
Barberry	*Berberis gladwynensis*
Barberry, Japanese	*Berberis thunbergii*
Blue indigo bush	*Dalea gregii*
Bottlebrush, lemon	*Callistemon citrinus*
Boxwood, common	*Buxus sempervirens*
Boxwood, Japanese	*Buxus microphylla*
Brittlebush	*Encelia farinosa*
Butterfly bush	*Buddleia davidii*
Buttonbush	*Cephalanthus occidentalis*

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Shrubs *(continued)*	
Camellia	*Camellia* spp.
Camellia	*Camellia japonica*
Cape jasmine	*Gardenia jasminoides*
Cassia, feathery	*Cassia artemisioides*
Chinese witch hazel	*Loropetalum chinensis*
Cinquefoil	*Potentilla* spp.
Cordyline	*Cordyline* spp.
Correa	*Correa* spp.
Cotoneaster	*Cotoneaster apiculatus*
Cotoneaster, bearberry	*Cotoneaster dammeri*
Cotoneaster, rock	*Cotoneaster horizontalis*
Cypress, Italian	*Cupressus sempervirens*
Cypress, Leyland	*Cupressocyparis leylandii*
Deutzia, slender	*Deutzia gracilis*
Dogwood, red twig	*Cornus sericea*
Dwarf Nandina	*Nandina domestica* 'nana'
Elaeagnus	*Elaeagnus ebbingei*
Escallonia	*Escallonia fradesii*
Euonymus	*Euonymus fortunei*
Euonymus, golden	*Euonymus japonica*
Euonymus, winged	*Euonymus alata*
Firethorn	*Pyracantha coccinea*
Forsythia, border	*Forsythia intermedia*
Fragrant olive	*Osmanthus fragrans*
Fuchsia, California	*Zauschineria californica*
Gardenia	*Gardenia jasminoides*
Hawthorne, Indian	*Raphiolepis indica*
Hibiscus	*Hibiscus chinensis*
Holly, Chinese	*Ilex cornuta*
Holly, Japanese	*Ilex crenata*
Holly, Foster's	*Ilex* x *attenuata* 'Fosteri'
Holly, Savannah	*Ilex* x *attenuata*
Holly, Yaupon	*Ilex vomitoria*
Honeysuckle, bush	*Diervilla lonicera*
Hopseed bush	*Dodonaea viscosa*
Hopbush	*Dodonaea viscosa*
Hydrangea	*Hydrangea* sp.
Hydrangea, bigleaf	*Hydrangea macrophylla*
Japanese andromeda	*Pieris japonica*
Japanese pittosporum	*Pittosporum tobira*
Juniper	*Juniperus* sp.
Juniper, Chinese	*Juniperus chinensis* v. *pfitzer*
Juniper, shore	*Juniperus conferta*
Juniper, trailing	*Juniperus horizontalis*
Laurel, cherry	*Prunus laurocerasus*
Laurel, mountain	*Kalmia latifolia*
Laurel, Otto Luyken	*Prunus laurocerasus*
Laurel, Schipka	*Prunus schipkanensis* or *prunus schipkaensis*
Laurustinus	*Viburnum tinus*
Lavender	*Lavandula* spp.
Lavender, English	*Lavandula angustifolia*
Leucothoe	*Leucothoe fontanesiana*
Leucothoe, coast	*Leucothoe axillaris*
Lilac	*Syringa spp.*

(continued)

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Shrubs *(continued)*	
Lilac, cut-leaf	*Syringa laciniata*
Lily-of-the-Nile	*Agapanthus africanus*
Mahonia	*Mahonia aquifolium*
Myrtle, compact	*Myrtus communis*
Myrtle, wax	*Myrica cerifera*
Nandina	*Nandina domestica*
Oleander	*Nerium oleander*
Oregon holly-grape	*Mahonia aquifolium*
Osmanthus	*Osmanthus fragrans*
Palm, European fan	*Chamaerops humilis*
Palm, Mediterranean fan	*Chamaerops* spp.
Phlox, prickly	*Leptodactylon californicum*
Photinia, Fraser	*Photinia* x *fraseri*
Pieris, Japanese	*Pieris japonica*
Pine, mugo	*Pinus mugo*
Plum, Natal	*Carissa grandiflora*
Privet, California	*Ligustrum ovalifolium*
Privet, glossy	*Ligustrum lucidum*
Privet, variegated	*Ligustrum sinensis*
Privet, waxleaf	*Ligustrum japonicum*
Pyracantha	*Pyracantha coccinea*
Quince, flowering	*Chaenomeles japonica*
Ranger, Texas	*Leucophyllum frutescens*
Redroot	*Ceanothus* spp.
Rhododendron	*Rhododendron* spp.
Rose	*Rosa* spp.
Rose mallow (shrub althea)	*Hibiscus syriacus*
Shrub verbena	*Lantana* x *hybrida*
Spice plant	*Illicium parviflorum*
Spiraea	*Spiraea* x *vanhouttei*
Spiraea, Anthony Waterer	*Spiraea* x *bumalda*
Spiraea, Japanese	*Spiraea japonica*
Sweet bay	*Laurus nobilis*
Trumpet bush	*Tecoma stans*
Verbena, lemon	*Aloysia triphylla*
Viburnum	*Viburnum* spp.
Viburnum	*Viburnum nudam*
Viburnum	*Viburnum suspensum*
Viburnum (Snowball bush, Cranberry bush)	*Viburnum opulus*
Viburnum, doublefile	*Viburnum plicatum*
Viburnum, sweet	*Viburnum odoratissimum*
Vitex	*Vitex* spp.
Weigela	*Weigela florida*
Wild lilac	*Ceanothus* spp.
Wisteria	*Wisteria* spp.
Xylosma	*Xylosma congestum*
Yellowbells	*Tecoma stans*
Yew	*Taxus* x *media*
Yew, Japanese	*Taxus cuspidata*
Yew, Southern	*Podocarpus macrophyllus*
Yucca, Adam's needle	*Yucca filamentosa*
Yucca, weeping	*Yucca pendula*

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Ground Covers	
Ajuga	*Ajuga reptans*
Baby sun rose	*Aptenia cordifolia*
Beach strawberry	*Fragaria chiloensis*
Capeweed	*Arctotheca calendula*
Cinquefoil, spring	*Potentilla verna*
Coyotebrush, dwarf	*Baccharis pitularis*
Daisy, trailing African	*Osteospermum fruticosum*
Dymondia	*Dymondia margaretae*
Gazania	*Gazania splendens*
Iceplant, large leaf	*Carpobrotus edulis*
Ivy, English	*Hedera helix*
Ivy, geranium	*Pelargonium peltatum*
Jasmine, Asiatic	*Trachelospermum asiaticum*
Jasmine, primrose	*Jasminum mesnyi*
Jessamine, Carolina	*Gelsemium sempervirens*
Manzanita, bearberry	*Arctostaphylos uva-ursi*
Mondograss	*Ophiopogon japonica*
Morningglory	*Convolvulus* spp.
Myoporum	*Myoporum parviflolium*
Pachysandra	*Pachysandra terminalis*
Potentilla	*Potentilla fruticosa*
Red apple	*Aptenia cordifolia*
Rosemary	*Rosemarinus officinalis*
Rose-of-Sharon (Aarons beard)	*Hypericum calycinum*
St. John's wort, creeping	*Hypericum calycinum*
Sand strawberry	*Fragaria chiloensis*
Sedum	*Sedum spurium*
Stonecrop	*Sedum spurium*
Verbena, Peruvian	*Verbena peruviana*
Vervain	*Verbena peruviana*
Vetch, crown	*Vicia sativa*
Vinca	*Vinca minor*
Wintercreeper	*Euonymous fortunei*
Herbaceous Perennials	
Acacia	*Acacia redolens*
Asparagus	*Asparagus* spp.
Aster, New York	*Aster novi-belgii*
Aster, Stokes	*Stokesia laevis*
Astilbe (false spirea)	*Astilbe* spp.
Avens	*Geum triflorum*
Baby's breath	*Gypsophila elegans*
Baby's breath	*Gypsophila paniculata*
Beard-tongue	*Penstemon* spp.
Bellflower	*Campanula* spp.
Bellflower, willow	*Campanula persicifolia*
Bird of paradise	*Caesalpinia pulcherrima*
Bleeding heart	*Dicentra spectabilis*
Butterfly weed	*Asclepias tuberosa*
Caladium	*Caladium* x *hortorum*
California poppy	*Eschscholzia californica*
Calla lily	*Calla* spp., *Zantedeschia Spreng., Z. aethiopica*
Chincherinchee	*Ornithogalum thyrsoides*

(continued)

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Herbaceous Perennials *(continued)*	
Columbine	*Aquilegia* 'McKana Giant'
Columbine	*Aquilegia* x *hybrida*
Daffodil	*Narcissus* spp.
Dahlia	*Dahlia* spp.
Daylily	*Hemerocallis* spp.
Fairy duster	*Calliandra eriophylla*
Fortnight lily	*Moraea* spp.
Foxglove	*Digitalis purpurea*
Freesia	*Freesia* x *hybrida*
Gaillardia	*Gaillardia pulchella*
Geum	*Geum* spp.
Gladiolus	*Gladiolus* spp.
Heather, dwarf	*Calluna vulgaris*
Iris	*Iris hollandica*
Jonquil	*Narcissus jonquilla*
Lantana, weeping	*Lantana montevidensis*
Leopard's bane	*Doronicum cordatum*
Lilly	*Lilium* spp.
Liriope, big blue	*Liriope muscari*
Liriope, creeping	*Liriope spicata*
Liriope, variegated	*Liriope muscari*
Moonbeam	*Coreopsis verticillata*
Montbretia	*Crocosmia crocosmiiflora*
Mugwort, Western	*Artemesia ludoviciana*
Mum, hardy	*Dendranthema* x *morifolium*
Nightshade	*Solanum* spp.
Orchid, peacock	*Acidanthera bicolor*
Palm, Areca	*Chysalidocarpus lutescens*
Palm, pygmy date	*Phoenix roebelence*
Palm, Washington	*Washingtonia robusta*
Peony, Chinese	*Paeonia lactiflora*
Purple gay-feather	*Liatris pycnostachys*
Purple loosestrife	*Lythrum virgatum*
Rodgersia	*Rodgersia henricie*
Rosemary	*Rosmarinus officinalis*
Sage	*Salvia* x *sylvestris*
Sedge	*Carex* spp.
Statice	*Limonium latifolia*
Statice, German	*Goniolimon tartaricum*
Texas bluebonnet	*Lupinus texenis*
Wonder flower	*Ornithogalum thyrsoides*
Zephyr lily	*Zephyranthes* spp.
Ornamental Grasses	
Beach grass	*Ammophila breviligulata*
Fescue, blue	*Festuca ovina*
Fescue, sheep	*Festuca ovina*
Fountain grass	*Pennisetum setaceum*
Miscanthus	*Miscanthus* spp.
Pampas grass	*Cortaderia selloana*
Reed canary grass	*Phalaris arundinacea*
Reed, giant	*Arundo* spp.
Ribbon grass	*Phalaris arundinacea*
Tufted hair grass	*Deschampsia caespitosa*

Table 2. Ornamental Species *(continued)*

Common Name	Scientific Name
Bedding Plants	
Ageratum	*Ageratum houstonianum*
Alyssum	*Alyssum saxatile*
Artemesia	*Artemesia* spp.
Balloonflower	*Platycodon grandiflorum*
Begonia	*Begonia* spp.
Cabbage, ornamental	*Brassica olereacea*
Cast iron plant	*Aspidistra elatior*
China aster	*Callistephus chinensis*
Crocosmia, montebretia	*Crocosmia* x *crocosmiiflora*
Dahlia	*Dahlia* spp.
Dianthus	*Dianthus barbatus*
Dusty miller	*Senecio cineraria*
Gayfeather	*Liatris* spp.
Gazania, treasure flower	*Gazania rigens*
Gazania, trailing	*Gazania rigens leucolaena*
Kale, ornamental	*Brassica napus*
Marigold, African	*Tagetes erecta*
Moss rose	*Portulaca grandiflora*
Mum, garden	*Chrysanthemum* spp.
Periwinkle	*Vinca major*
Periwinkle, rose	*Catharanthus roseus*
Petunia	*Petunia* spp.
Plumosa cockscomb	*Celosia cristata*
Portulaca	*Portulaca grandiflora*
Salvia	*Salvia splendens*
Snapdragon	*Antirrhinum majus*
Statice	*Limonium* spp.
Sweet William	*Dianthus barbatus*
Vinca	*Vinca major*

Tree Plantations

Tower® herbicide can be used for preemergence weed control during site preparation, establishment, and/or maintenance of tree plantations, Christmas tree plantations, conifer and hardwood seedling nurseries, pulpwood farms, fiber farms and nurseries for fruit and nut tree seedlings and rootstock. **Tower** may also be used for hardwood and conifer regeneration on Conservation Reserve Program land or similar areas.

Specific Tree Plantings[1] Use Site Instructions

Site	Application Instructions and Restrictions
Tree plantings including Christmas tree plantations, conifer and hardwood tree seedling nurseries, established trees[2]	• It is important that slit closure has been achieved so herbicide does not directly contact tree roots. • **DO NOT** apply to newly transplanted seedlings until plants have been watered and soil has been thoroughly packed and settled around roots. • Directed or over-the-top spray applications can be made except at the time of bud break. • **DO NOT** make applications at bud break under either application method.

[1] Plant only those desirable plant species listed on this label into soil treated the previous season with **Tower** or injury may occur.
[2] Before treating a large number of plants, spray a few plants and observe for at least 2 months for plant damage prior to full-scale application.

Tank Mixes

For postemergence control of weeds, use tank mix combinations of **Tower** plus glyphosate, **Finale® herbicide**, or other labeled herbicides. Refer to tank mix labeling for species recommendations. Rates for the tank mix compounds should be determined from the product labels of both **Tower** and partner herbicides prior to use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. **Tower** plus **diuron** or **simazine** combinations will broaden the weed control spectrum; however, use of combinations may restrict **Tower** usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use, and follow those that are most restrictive.

Refer to **Table 1** for use rates, **Table 2** for list of ornamental (tree) species, and **Table 3** for weeds controlled.

Landscape and Grounds Maintenance

Tower can be implemented into landscape and grounds maintenance programs to provide extended preemergence weed control. **Tower** can be used in and around established ornamental plantings in nonagricultural areas defined as follows:

- **Landscaped ornamental areas** in and around residential and commercial establishments, multifamily dwellings, military and other institutions, university or college campuses, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses, prairie grass areas, and common areas in residential developments.
- **Specified noncrop areas:** parking lots, driveways and roadsides, highway rights-of-way, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, around statuary or monuments, utility substations, markers/borders and fence lines and mulch beds. It may be used under asphalt or concrete treatments as part of a site-preparation program.

Specific Landscape[1] and Ornamental Plantings[1] Use Site Instructions

Site	Application Instructions and Restrictions
Landscape ornamental plantings[2]	• **DO NOT** apply to newly transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots. • Apply as a directed or over-the-top spray. • Use the lowest labeled rate when making applications. Repeat applications can be made for extended landscape weed control. • **DO NOT** make applications at bud break under either application method (directed, over-the-top).

[1] Plant only those desirable plant species listed on this label into soil treated the previous year with **Tower** or injury may occur.
[2] Before treating a large number of plants, spray a few plants and observe for at least 2 months for plant damage prior to full-scale application.

Refer to **Table 1** for use rates, **Table 2** for list of ornamental species, and **Table 3** for weeds controlled. See **Tank Mixes** in **Tree Plantations** section about tank mix combinations that can be used when individual product labels allow for similar uses, sites and precautions.

Table 3. Weeds Controlled

Common Name	Scientific Name
Grass Weeds	
Barnyardgrass	*Echinochloa crus-galli*
Bluegrass, annual	*Poa annua*
Bluegrass, roughstalk	*Poa trivialis*
Brome, California	*Bromus carinatus*
Brome, downy	*Bromus tectorum*
Crabgrass, large	*Digitaria sanguinalis*
Crabgrass, smooth	*Digitaria ischaemum*
Cupgrass, Southwestern	*Eriochloa gracilis*
Cupgrass, woolly*	*Eriochloa villosa*
Fescue, rattail	*Vulpia myuros*
Foxtail, giant	*Setaria fabbri*
Foxtail, yellow	*Setaria glauca*
Goosegrass	*Eleusine indica*
Johnsongrass, seedling*	*Sorghum halepense*
Millet, wild proso*	*Panicum miliaceum*
Panicum, fall	*Panicum dichotomiflorum*
Panicum, Texas*	*Panicum texanum*
Red rice	*Oryza sativa*
Ryegrass, Italian	*Lolium multiflorum*
Sandbur, field	*Cenchrus incertus*
Shattercane*	*Sorghum bicolor*
Signalgrass, broadleaf*	*Brachiaria platyphylla*
Witchgrass	*Panicum capillare*
Broadleaf Weeds	
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus powellii*
Beggarweed, Florida*	*Desmodium tortuosum*
Bittercress	*Cardamine* spp.
Chamomile, mayweed	*Anthemis cotula*
Carpetweed	*Mollugo verticillata*
Doveweed	*Murdannia nudiflora*
Eclipta*	*Eclipta alba* and *E. prostrata*
Galinsoga, hairy*	*Galinsoga cilata*
Galinsoga, smallflower*	*Galinsoga parviflora*
Groundsel, common	*Senecio vulgaris*
Lambsquarters, common*	*Chenopodium album*
Liverwort	*Marchatia polymorpha*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nightshade, hairy	*Solanum sarrachoides*
Nightshade, cutleaf	*Solanum triflorum*
Pearlwort	*Sagina procumbens* and *S. decumbens*
Pigweed, prostrate	*Amaranthus blitoides*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Pigweed, tumble	*Amaranthus albus*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Ragweed, common*	*Ambrosia artemisiifolia*
Shepherdspurse	*Capsella bursa-pastoris*
Spurge, nodding	*Euphorbia nutans*
Spurge, spotted	*Euphorbia maculata*

Table 3. Weeds Controlled *(continued)*

Common Name	Scientific Name
Broadleaf Weeds *(continued)*	
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatus*
Willowherb, Northern	*Epilobium ciliatum*
Sedges	
Flatsedge, rice	*Cyperus iria*
Kyllinga	*Kyllinga* spp.
Nutsedge, yellow	*Cyperus esculentus*
Sedge, annual	*Cyperus compressus*

* Denotes partial control or suppression only of the weed.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Plant injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF. 1108P

007969-00239.20091218.**NVA 2009-04-275-0226**
Supersedes: NVA 2008-04-275-0031
Supplemental: NVA 2007-04-275-0165

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